

## UNIVERSITÀ DI PARMA

## DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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## **COLLOQUIUM del DIPARTIMENTO**



Lunedì 2 maggio 2022, ore 14:30 Aula A, Plesso di Matematica/Informatica

**Prof. Carlangelo Liverani** Università degli Studi di Roma Tor Vergata

## Asymptotic properties of deterministic fast-slow systems

Abstract: Fast-slow systems are ubiquitous and are usually treated using averaging or homogenization theory. However, in many applications one is interested in what happens for much longer times than the ones granted by averaging or homogenization.

When the fast variable has a chaotic motion, fast-slow systems are a natural example of partially hyperbolic systems, so it seems possible to combine probability techniques with dynamical systems techniques to investigate longer times.

A general theory is sorely missing. However, I will discuss a simple example showing that several results are within reach.

Tutti sono invitati a partecipare.

Organizzatori: Proff. Alessandra Lunardi, Adriano Tomassini.